

AMENDMENTS TO THE CLAIMS

1. (PREVIOUSLY PRESENTED) A high-frequency oscillation circuit comprising:

a closed loop circuit including at least one primary logic element inverter, said at least one logic element having an input and an output, wherein said closed loop circuit begins at said output and returns to said output of said at least one logic element, said at least one logic element including a first logic element within said closed loop circuit;

another logic element external to said closed loop circuit;

a capacitor being disposed within said closed loop circuit;

a resistor being disposed within said closed loop circuit; and

a crystal resonator for high frequency being disposed within said closed loop circuit, said crystal resonator being connected in series with said capacitor and in parallel with said resistor and having a basic oscillation frequency of between 1 MHz to 500 MHz.

2. (CANCELED)

3. (PREVIOUSLY PRESENTED) A high-frequency oscillation circuit as claimed in claim 1, further comprising another capacitor being disposed externally to and in serial connection with said closed loop circuit.

4. (PREVIOUSLY PRESENTED) A high-frequency oscillation circuit as claimed in claim 1, wherein said first logic element includes a high-speed TTL or CMOS.

5. (PREVIOUSLY PRESENTED) A high-frequency oscillation circuit as claimed in claim 1, wherein said crystal resonator of high frequency has a basic oscillation frequency of at least 30 MHz.

6. (PREVIOUSLY PRESENTED) A high-frequency oscillation circuit comprising:

a closed loop circuit including at least one logic element, said at least one logic element having an input and an output, wherein said closed loop circuit begins at said output and returns to said output of said at least one logic element, wherein said at least one logic element includes a first logic element within said closed loop circuit and another logic element external to and in

serial connection with said closed loop circuit, said first logic element including a high speed CMOS or a high speed TTL;

a capacitor being disposed within said closed loop circuit;

a resistor being disposed within said closed loop circuit; and

a crystal resonator for high frequency being disposed within said closed loop circuit, said crystal resonator being connected in series with said capacitor and in parallel with said resistor.

7. (PREVIOUSLY PRESENTED) A high-frequency oscillation circuit as claimed in claim 1, wherein said first logic element includes a high-speed CMOS.

8. (CANCELED)

9. (PREVIOUSLY PRESENTED) A high-frequency oscillation circuit comprising:

a closed loop circuit including at least one logic element, said at least one logic element having an input and an output, wherein said closed loop circuit begins at said output and returns to said output of said at least one logic

element, said at least one logic element including a first logic element within said closed loop circuit;

another logic element external to said closed loop circuit;

a capacitor being disposed within said closed loop circuit;

a resistor being disposed within said closed loop circuit; and

a crystal resonator for high frequency being disposed within said closed loop circuit, said crystal resonator being connected in series with said capacitor and in parallel with said resistor, wherein said crystal resonator is a sensor element for chemical measurement of a predetermined parameter.

10. (CANCELED)

11. (PREVIOUSLY PRESENTED) A high-frequency oscillation circuit comprising:

a closed loop circuit including at least one logic element, said at least one logic element having an input and an output, wherein said closed loop circuit begins at said output and returns to said output of said at least one logic element, wherein said logic element includes a high-speed TTL or CMOS;

a capacitor being disposed within said closed loop circuit;

a resistor being disposed within said closed loop circuit; and

a crystal resonator for high frequency being disposed within said closed loop circuit, said crystal resonator being connected in series with said capacitor and in parallel with said resistor, said crystal resonator having a basic oscillation frequency of 500 MHz or more.

12. (PREVIOUSLY PRESENTED) A high-frequency oscillation circuit as claimed in claim 1, wherein said another logic element being disposed externally to and in serial connection with said closed loop circuit.

13. (PREVIOUSLY PRESENTED) A measuring instrument for measuring a predetermined parameter, said measuring instrument comprising:

a closed loop, high frequency oscillation circuit including at least one logic element, said at least one logic element having an input and an output, wherein said closed loop circuit begins at said output and returns to said output of said at least one logic element;

a capacitor being disposed within said closed loop circuit;

a resistor being disposed within said closed loop circuit; and

a sensor for determining said predetermined parameter, wherein said sensor includes a crystal resonator for high frequency being disposed within said closed loop circuit, said crystal resonator being connected in series with

said capacitor and in parallel with said resistor and having a natural oscillation frequency, a change in said natural oscillation frequency of said crystal resonator being indicative of said predetermined parameter.

14. (PREVIOUSLY PRESENTED) The measuring instrument for measuring said predetermined parameter according to claim 13, wherein said predetermined parameter includes at least one of a weight parameter, a viscosity parameter, and a film thickness parameter.

15. (PREVIOUSLY PRESENTED) The measuring instrument for measuring said predetermined parameter according to claim 13, wherein said sensor is at least one of a weight sensor, a chemical sensor, a biosensor, a viscosity sensor, a film thickness meter, a gas sensor, a floating dust sensor, and an immunity sensor.

16. (PREVIOUSLY PRESENTED) The measuring instrument for measuring said parameter according to claim 15, said crystal resonator having a basic oscillation frequency of 500 MHz or more.

17. (PREVIOUSLY PRESENTED) The measuring instrument for measuring said parameter according to claim 15, said crystal resonator having a basic oscillation frequency of between 1 MHz and 500 MHz.

18. (PREVIOUSLY PRESENTED) The measuring instrument for measuring said parameter according to claim 13, said at least one logic element including a first logic element within said closed loop circuit and another logic element external to said closed loop circuit.

19. (PREVIOUSLY PRESENTED) The measuring instrument for measuring said parameter according to claim 13, wherein said first logic element includes a high-speed CMOs.

20. (PREVIOUSLY PRESENTED) The measuring instrument for measuring said parameter according to claim 13, wherein said logic element includes a high-speed TTL or CMOS.

21. (PREVIOUSLY PRESENTED) The high frequency oscillation circuit according to claim 1, wherein said first logic element is an inverter element.

22. (PREVIOUSLY PRESENTED) The high-frequency oscillation circuit according to claim 6, wherein said at least one logic element includes an inverter element.

23. (PREVIOUSLY PRESENTED) The high-frequency oscillation circuit according to claim 9, wherein said first logic element includes an inverter element.

24. (PREVIOUSLY PRESENTED) The high-frequency oscillation circuit according to claim 11, wherein said at least one logic element includes an inverter element.

25. (PREVIOUSLY PRESENTED) The measuring instrument according to claim 13, wherein said at least one logic element includes an inverter element.

26. (NEW) A high-frequency oscillation circuit comprising:
a primary logic element;
a secondary logic element, wherein said primary and said secondary logic elements are inverters, and said secondary logic element acts as a buffer for

outputting an output of the oscillation circuit by connecting to an output of the primary logic element;

a closed circuit connecting an input and an output of the primary logic element, wherein said closed circuit includes a condenser installed in series with crystal resonators showing basic frequencies of 20 MHz to 500 MHz and including a circuit connected to a resistor in parallel with said crystal resonators.

27. (NEW) The high-frequency oscillation circuit according to claim 26, further comprising a sensor made of a crystal.

28. (NEW) The high-frequency oscillation circuit according to claim 27, wherein said sensor utilizes outputted oscillation of the crystal sensor to sense a parameter.

29. (NEW) A high-frequency oscillation circuit comprising a sensor made of a crystal.

30. (NEW) A high-frequency oscillation circuit comprising a crystal sensor, wherein said sensor utilizes outputted oscillation of the crystal sensor to sense a parameter.

31. (NEW) A high-frequency oscillation circuit as claimed in claim 1, wherein said crystal resonator of high frequency has a basic oscillation frequency of at least 20 MHz.